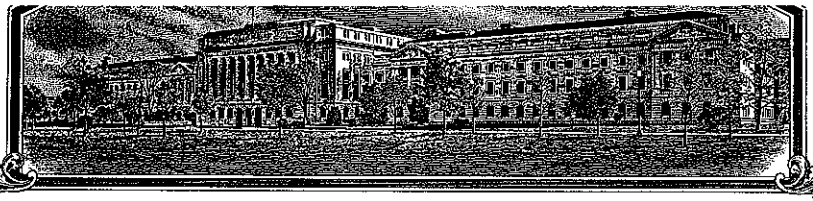
200300067

No.



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Wisconsin Alumni Research Foundation

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

POTATO

'MegaChip'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this eleventh day of August, in the year two thousand and eight.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. ***Include form number and date on all reproductions*** Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER
Wisconsin Alumni Research Foundation

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME
W1201

3. VARIETY NAME
'MegaChip' per correspondence 4-14-08 LMC

FOR OFFICIAL USE ONLY 4-23-08

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
614 Walnut Street
P.O. Box 7365
Madison, WI 53707-7365, U.S.

5. TELEPHONE *(Include area code)*
608-263-2500

6. FAX *(Include area code)*
608-263-1064

PVPO NUMBER
2003 00067

FILING DATE
12/20/02

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*

8. IF INCORPORATED, GIVE STATE OF INCORPORATION
Wisconsin

9. DATE OF INCORPORATION
July 1, 1925

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*

Lisa Mueller
Dykema Gossett PLLC
10 South Wacker Drive, Suite 2300
Chicago IL 60606

per correspondence Nov 26, 2007 LMC 1-15-08

FEES RECEIVED

FILING AND EXAMINATION FEES:
$ 2705
DATE 12/20/02

CERTIFICATION FEE:
$ 768.00
DATE 6/4/08

11. TELEPHONE *(Include area code)*
312-627-2184

12. FAX *(Include area code)*
312-876-1155

13. E-MAIL
lmueller@dykema.com

14. CROP KIND *(Common Name)*
Potato

15. GENUS AND SPECIES NAME OF CROP
Solanum tuberosum L.

16. FAMILY NAME *(Botanical)*
solanaceae

17. IS THE VARIETY A FIRST GENERATION HYBRID?
☑ YES ☒ NO

18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)

- a. ☑ Exhibit A. Origin and Breeding History of the Variety
- b. ☑ Exhibit B. Statement of Distinctness
- c. ☑ Exhibit C. Objective Description of Variety
- d. ☐ Exhibit D. Additional Description of the Variety *(Optional)*
- e. ☑ Exhibit E. Statement of the Basis of the Owner's Ownership
- f. ☑ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
- g. ☑ Filing and Examination Fee ($2,705), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *See Section 83(a) of the Plant Variety Protection Act)*
☑ YES *(If "yes", answer items 20 and 21 below)* ☒ NO *(If "no", go to item 22)*

per correspondence April 14, 08 LMC 4-23-08

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? ☑ YES ☒ NO
IF YES, WHICH CLASSES? ☑ FOUNDATION ☐ REGISTERED ☑ CERTIFIED

21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? ☑ YES ☐ NO
IF YES, SPECIFY THE NUMBER 1,2,3, *etc.* [4] FOUNDATION [ ] REGISTERED [1] CERTIFIED
(If additional explanation is necessary, please use the space indicated on the reverse.)

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?
☐ YES ☑ NO April 2006 at WISCOSIN
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?
☐ YES ☑ NO
IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

per letter April 14, 2008 LMC 4-23-08

24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER	SIGNATURE OF OWNER
NAME *(Please print or type)* Lisa V. Mueller	NAME *(Please print or type)*
CAPACITY OR TITLE Attorney	DATE 12/19/02
CAPACITY OR TITLE	DATE

S&T-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (04-01) which is obsolete. *(See reverse for instructions and information collection burden statement)*

INSTRUCTIONS 200300067

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to **reproduce** the variety, or for tuber reproduced varieties verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for $2,705 ($320 filing fee and $2,385 examination fee), payable to "Treasurer of the United States" *(See Section 97.6 of the Regulations and Rules of Practice.)* Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of $320 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office
Telephone: (301) 504-5518
FAX: (301) 504-5291
Homepage: http://www.ams.usda.gov/science/pvpo/pvp.htm

ITEM

18a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;
(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, *etc.*

18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

19. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

22. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

23. *See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.*

21. CONTINUED FROM FRONT *(Please provide a statement as to the limitation and sequence of generations that may be certified.)*

~~**22. CONTINUED FROM FRONT** *(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*~~

23. CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)*

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)*

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center--East, Beltsville, MD 20705. Telephone: (301) 504-8089. http://www.ams.usda.gov/lsg/seed.htm

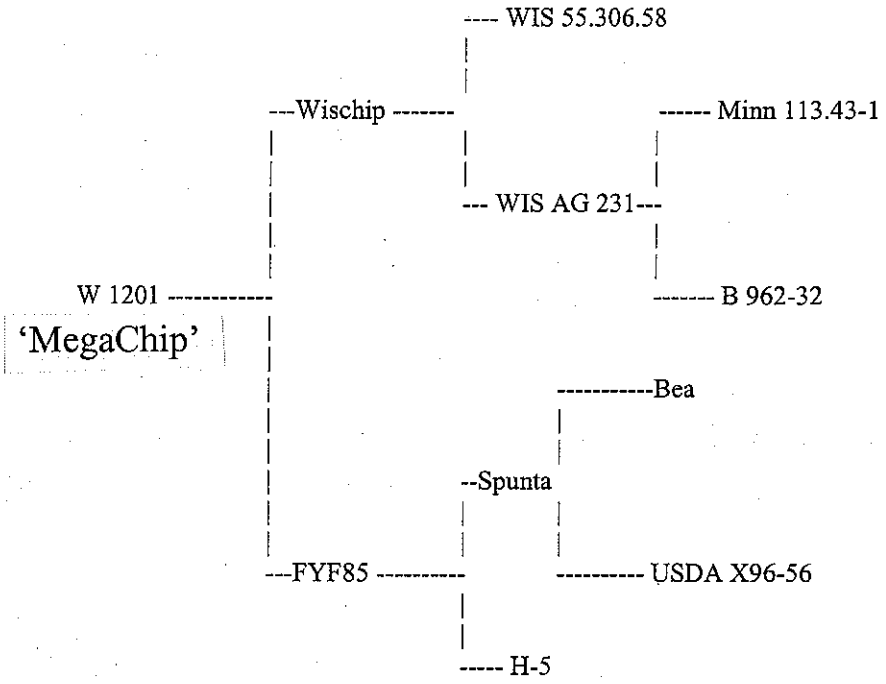
S&T-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (04-01) which is obsolete.

Exhibit A
Origin and Breeding History of the Variety W 1201

1. Genealogy and breeding.

'MegaChip'

1a. Genealogy.



1b. Breeding Method.

As seen at 1a, the cross was made between a commercial variety, Wischip and a breeding line, FYF85. A conventional breeding scheme based on individual clonal selection in generation F1 was used. The main selection criterion was to obtain a variety with round, white fleshed potatoes, which produces good chip color and specific gravity for the processing market, with a higher common scab resistance than the standard variety Snowden and more adapted to the Wisconsin environmental conditions.

2. Subsequent Stages of Selection and Multiplication.

The cross was made in 1985 at Rhinelander Agricultural Research Station. In 1986 the clone was in seedling stage, in 1987 in 1 Hill Plots, in 1988 in 4 Hill Plots, in 1989-1990 in 8 Hill Plots, in 1991 in 20 Hill Plots, in 1992 in 40 Hill Plots and in 1993-1996 and 1999-2001 in replicated trials in Hancock and Rhinelander, in 1999-2001 in the multiplication field, in 1994 in the Wisconsin State trial (Hancock) and in 2001-2002 in North Central Regional Trial.

3. Evidence of Uniformity and Stability.

The genetic structure is highly uniform due to the vegetative propagation of the potato plants. The phenotypic expression can vary in function of the interaction between genotype and environment and therefore the following statements are made.

#200300067

EXHIBIT A

"MegaChip was observed in replicated trials and seed lots evaluated in Wisconsin and the North Central region from 1993-2001 in replicated trials conducted in Wisconsin and the North Central and was determined to be genetically uniform and stable from year to year and location to location with no evidence of variants."

3a. Uniformity.

The tuber appearance is uniform in shape, depth of eyes, white slightly netted skin and white flesh. The tuber size is highly uniform around 5-7 oz.

3b. Stability.

Along the breeding stages in 1987- 1992 and the replicated trials in 1993-1996 and 1999-2002, W 1201 proved to be stable in the tuber appearance, with exception of cases of diseases and physiological disorders.

4. The Type and Frequency of Variants during reproduction and Multiplication.

The potato line W 1201 is multiplied vegetatively, which keeps the genotypic structure unaltered. The frequency of natural mutations for tuber skin color, for maturity and foliage type is very likely less than 1 in 100,000 and the regular potato seed production systems do clonal selection discarding any variant which is not true to type (for instance the tolerances of Wisconsin Potato Seed Certification Program are 0.00% for Foundation and 0.1% for Certified categories).

EXHIBIT B: STATEMENT OF DISTINCTNESS

MegaChip <W1201> is most similar to the variety 'Snowden'. However, Megachip <W1201> has a larger number of secondary and tertiary leaflet pairs than 'Snowden'. See the photo below Figure 1.

Fig. 1a. MegaChip

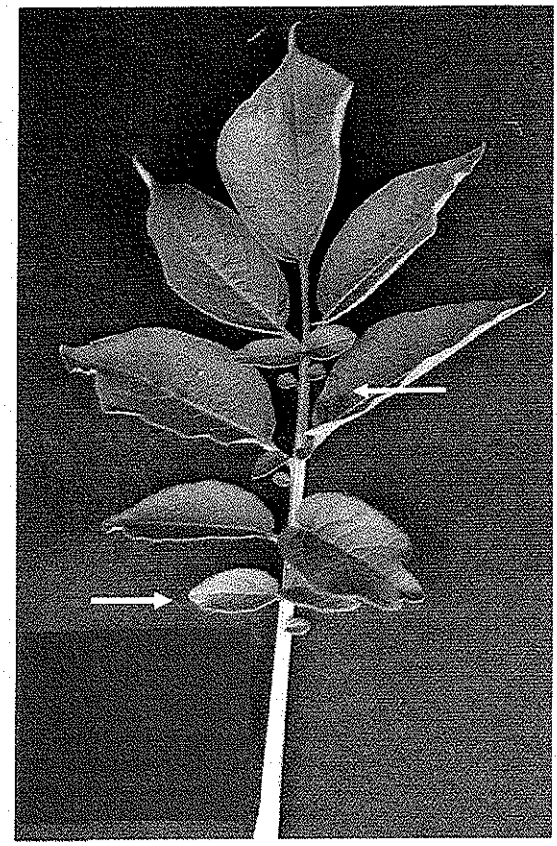


Fig. 1b. 'Snowden'

Figure 1a above shows that MegaChip exhibits a larger number of secondary and tertiary leaflets. Figure 1b above shows that 'Snowden" exhibits a lower number of secondary and tertiary leaflets.

Additionally, the subject variety, MegaChip <W1201> is most similar to 'Snowden; however MegaChip <W1201> is significantly more resistant to common scab by *Streptomyces scabies* (Thaxt.) than 'Snowden'. This was evidenced by the results of three independent experiments in three Wisconsin locations between 2003 and 2007 as indicated in Table 1 below.

Table 1. Comparison of MegaChip and the Most Similar Variety 'Snowden' for Common Scab Resistance in Three Years and Locations.

Varieties	Rhinelander WI 2003 Scab Severity[1.51]	Antigo WI, 2004 Lesion Area Index	Antigo WI, 2004 LesionType Index	Heartland Farms 2007 1 to 5 Scab Severity
MegaChip	8.3	3.9	5.8	2.4
'Snowden'	15.7	9.8	30.5	3.5
$LSD_{0.05}$	5.5	4.1	11.2	0.6

Rhinelander WI Experiment 2003: A randomized complete block design with three replications was used and each plot consisted of one 8-ft-long rows with spacing 3 ft between rows and 12 in. between plants within the row. Common scab severity was evaluated on a 1-9 point scale basis as surface area affected and lesion type; with 1 = no scab, 2 = 1-5% area affected by surface scab, 3 = 5-16% area affected by surface scab, 4 = 16-25% affected with surface scab, 5 = 25-35% affected with surface scab, 6 = 36-50% area affected with scab or some pitted, 7 = 50-62% area affected by scab with pitted scab 8 = 62-75% area affected with scab and pitted scab and 9 = more than 75% area affected with scab and pitted scab. Severity values were transformed to normality using a Box-Cox transformation. The study relied on natural inoculum present in field soil. Analysis of variance was performed on data using a restricted maximum likelihood model analyzed by SAS proc mix procedure.

Antigo WI Experiment 2004: A randomized complete block design with four replications was used and each plot consisted of two 8-ft-long rows with spacing 3 ft between rows and 12 in. within the row. The study relied on inoculum present in field soil. Analysis of variance was performed on data, and Fisher's protected least significant difference (LSD) was calculated (alpha=0.05).

Lesion area index. Lesions were rated on a 5-point scale with: 0 = no lesions; 1 = 1-10% of the surface area of the tuber affected; 2 = 10-25% affected; 3 = 25-50% affected; 4 = 50-75% affected; 5 = > 75% area affected. The lesion area index = the sum for all classes of [(the number of tubers in that class x the class number) x 100]/(5 x total number of tubers rated). The maximum value for this index (if all tubers were rated 5) is 100.
Lesion type index. Lesions were rated on a 5-point scale as described above. The type lesion index = the sum for all classes of [(the number of tubers in that class x the class number) x 100] /(5 x the total number of tubers rated). The maximum value for this index (if all tubers were rated 5) is 100.

Heartland Farms, Hancock WI Experiment 2007: A blocks within replication design with three replications was used and each plot consisted of one 4-ft-long rows with spacing 3 ft between rows and 12 in. within the row. Common scab severity was evaluated on a 1-5 point scale base in surface area affected and lesion type; with: 0 = no lesions; 1 = 1-10% of the surface area of the tuber affected with surface scab; 2 = 10-25% affected with surface scab; 3 = 25-50% affected with surface to moderate scab; 4 = 50-75% affected or pitted scab; 5 = > 75% affected and pitted scab observed. The study relied on inoculum present in field soil. Analysis of variance was performed on data using a restricted maximum likelihood model analyzed by SAS proc mix procedure.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY DIVISION
PLANT VARIETY PROTECTION OFFICE

EXHIBIT C
OBJECTIVE DESCRIPTION OF VARIETY
POTATO (*Solanum tuberosum* L.)

INSTRUCTIONS

200300067

The Objective Description Form:
The objective description form lists characteristics to be used as the basis for developing the description of potato varieties. It is designed to guide the applicant in describing a variety in detail so a meaningful comparison with other potato varieties can be accomplished. It is recommended that this form be completed in as much detail as possible to ensure an accurate description. Please fill in the requested data and place the appropriate number that describes the varietal characters typical of this potato variety and the reference varieties in the respective boxes.

Test Guidelines:
Any statistical and trial (field test) data that may be necessary to support the variety description should be attached to this form. Please include for trial data the plot size, number of replications, number of plants, plant spacing, trial locations and growing periods. Trials should normally be conducted at one place, in the region that the variety has been adapted for, with a minimum of one growing period in the United States. All comparative data should be determined from varieties entered in the same trials. The size of the plots should be such that plants or parts of plants may be removed for measuring and counting without prejudice to the observations which must be made at the end of the growing period. As a minimum, each test should include a total of 60 plants which should be divided between two or more replicates. Separate plots for observation and measuring can only be used if they have been subject to similar environmental conditions. To determine color for a plant or plant parts a recognized standard color chart must be used such as the Royal Horticultural Society (R.H.S.) Color Chart.

Reference Varieties:
The application variety should be compared to at least one reference variety preferably a set of reference varieties. The reference varieties should be market class standard varieties currently grown in the United States and or the variety(ies) most similar. The following varieties are recommended as market class standards to be used as reference varieties:

Yellow-flesh table-stock	**Yukon Gold**
Round-white table-stock	**Superior**
Chip-processing	**Atlantic, Snowden, Norchip**
Frozen-processing	**Russet Burbank**
Russet table-stock	**Russet Burbank, Russet Norkotah, Goldrush**
Red table-stock	**Red Pontiac, Red Norland, Red Lasoda**

If the applicant does not use one of the recommended reference varieties the PVP office may not have a complete description for the reference variety used; therefore the applicant may have to supply this description by completing an Exhibit C form for the reference variety.

Characteristics:
The plant type and growth habit characteristics are collected at early first bloom. Figure 1 is supplied to help visualize the growth habit. For this descriptor, look at the stems rather than the stems and foliage. Plant maturity is measured at natural vine senescence.

Stem characteristics are also collected at early bloom. Stem anthocyanin coloration is divided into two descriptors: Location and intensity. Figure 12 is supplied to give an example of stem wings.

Leaf characteristics are observed at early first bloom. Fully-developed leaves located on the middle third of the plant should be used. Leaf pubescence refers to general trichomes. Figure 2 is supplied for examples of leaf silhouette. Figure 3 should be used to describe terminal and primary leaflet shape. Figures 4 and 5 are used to describe the terminal and primary leaflet shape of tip and base, respectively. To measure the total number of primary leaflets pairs, collect 10 fully- developed petioles (with leaves attached from each replication and take the average number of secondary and tertiary leaflets. Figure 11 is supplied to define leaf characteristics. Glandular trichomes should be described through descriptor #12 (Additional Comments and Characteristics). Leaf stipules are shown in figure 13 for visual definition.

Inflorescence characteristics should be measured at early first bloom. Figures 6 and 7 are supplied to describe corolla and anther shape, respectively. Corolla, calyx, anther, stigma and pollen should be observed on newly opened flowers.

Berry production should be based on field-grown plants rather than greenhouse plants.

Tuber characteristics should be observed following harvest. Figures 9 and 10 are available to describe distribution of secondary color and tuber shape, respectively.

Disease and pest reactions should be based upon specific tests rather than field observations. Other diseases or pests reactions not requested can be described if it is felt that it would be helpful to the description.

Quality characteristics should be described according to the market use.

If the plant is transgenic, this gene insertion(s) should be described.

Chemical identification and any other characteristics can be describe if they are helpful in distinguishing the variety.

A rating system of 1-9 provides a scale for describing most characteristics in this form. Characteristic may be rated with intermediate values where the characteristic grades gradually from one extreme to another. For example, if the character states are described as: 3 = Small; 5 = Medium; 7 = Large; the other values of 1, 2, 4, 6, 8, or 9 may be selected.

Legend:

V = Application Variety

R1-R4 = Reference Varieties

* = Both the reference variety(ies) and application variety must be described for characteristics designated with an asterisk.

NAME OF APPLICANT(S)	FOR OFFICIAL USE ONLY
Wisconsin Alumni Research Foundation	PVPO NUMBER 200300067
ADDRESS (*Street and No. or R.F.D. No., City, State, and Zip Code*) 614 Walnut Street P.O. Box 7365 Madison. WI 53707-7365. U.S.	VARIETY (V) NAME 'MegaChip' TEMPORARY OR EXPERIMENTAL DESIGNATION W 1201

REFERENCE VARIETIES: Enter the reference variety name in the appropriate box

Reference Variety 1 (R1)	Reference Variety 2 (R2)	Reference Variety 3 (R3)	Reference Variety 4 (R4)
ATLANTIC	SNOWDEN		

1. MARKET CHARACTERISTICS:

MARKET CLASS:

1 = Yellow-flesh tablestock; 2 = Round-white tablestock; 3 = Chip-processing; 4 = Frozen-processing; 5 = Russet tablestock; 6 = Other_____.

V	R1	R2	R3	R4
3	3	3		

2. PLANT CHARACTERISTICS:

GROWTH HABIT: *(See figure 1)*
3 = Erect (>45° with ground); 5 = Semi-erect (30-45° with ground); 7 = Spreading.

V	R1	R2	R3	R4
3	5	5		

TYPE:
1 = Stem (foliage open, stems clearly visible); 2 = Intermediate; 3 = Leaf (Foliage closed, stems hardly visible)

V	R1	R2	R3	R4
1	3	2		

MATURITY: Days after planting (DAP) at vine senescence

V	R1	R2	R3	R4
120	120	120		

PLANTING DATE:

V	R1	R2	R3	R4
APRIL 25	APRIL 25	APRIL 25		

REGION/AREA:

V	R1	R2	R3	R4
HANCOCK, WISCONSIN	HANCOCK, WISCONSIN	HANCOCK, WISCONSIN		

MATURITY CLASS:
1 = Very Early (<100 DAP); 2 = Early (100-110 DAP); 3 = Mid-season (111-120 DAP); 4 = Late (121-130 DAP); 5 = Very Late (>130 DAP).

V	R1	R2	R3	R4
4	4	4		

3. STEM CHARACTERISTICS: *Measure at early first bloom*

* STEM ANTHOCYANIN COLORATION:
1 = Absent; 3 = Weak; 5 = Medium; 7 = Strong; 9 = Very Strong

V	R1	R2	R3	R4
3	2	2		

STEM WINGS: *(See figure 12)*
1 = Absent; 3 = Weak; 5 = Medium; 7 = Strong; 9 = Very Strong

V	R1	R2	R3	R4
3	4	6		

4. LEAF CHARACTERISTICS:

LEAF COLOR: *(Observe fully developed leaves located on middle $^1/_3$ of plant)*
1 = Yellowish-green; 2 = Olive-green; 3 = Medium green; 4 = Dark green; 5 = Grey-green; 6 = Other_____

V	R1	R2	R3	R4
4	3.5	3.5		

LEAF COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsell Color Chart
(Observe fully developed leaves located on middle $^1/_3$ of plant & circle the appropriate color chart)

V	R1	R2	R3	R4
7.5GY 5.4	7.5GY 5.4	7.5GY 5.4		

LEAF PUBESCENCE DENSITY:
1 = Absent; 2 = Sparse; 3 = Medium; 4 = Thick; 5 = Heavy

V	R1	R2	R3	R4
3	2	3		

LEAF PUBESCENCE LENGTH:
1 = None; 2 = Short; 3 = Medium; 4 = Long; 5 = Very long

V	R1	R2	R3	R4
2	2	2		

(Note: Descriptor #19 can be used to describe the type and length of the glandular trichomes observed.)

* LEAF SILHOUETTE: *(See figure 2)*
1 = Closed; 3 = Medium; 5 = Open

V	R1	R2	R3	R4
5	3	3		

PETIOLES ANTHOCYANIN COLORATION:
1 = Absent; 3 = Weak; 5 = Medium; 7 = Strong; 9 = Very Strong

V	R1	R2	R3	R4
5	1	1		

LEAF STIPULES SIZE: *(See figure 13)*
1 = Absent; 3 = Small; 5 = Medium; 7 = Large

V	R1	R2	R3	R4
5	5	5.5		

TERMINAL LEAFLET SHAPE: *(See figure 3 & 11)*
1 = Narrowly ovate; 2 = Medium ovate; 3 = Broadly ovate; 4 = Lanceolate; 5 = Elliptical;
6= Obovate; 7 = Oblong; 8 = Other_____

V	R1	R2	R3	R4
1	2	2		

TERMINAL LEAFLET TIP SHAPE: *(See figure 4 & 11)*
1 = Acute; 2 = Cuspidate; 3 = Acuminate; 4 = Obtuse; 5 = Other_____

V	R1	R2	R3	R4
3	3	3		

* TERMINAL LEAFLET BASE SHAPE: *(See figure 5 & 11)*
1 = Cuneate; 2 = Acute; 3 = Obtuse; 4 = Cordate; 5 = Truncate; 6 = Lobed; 7 = Other_____

V	R1	R2	R3	R4
4	4	4		

* TERMINAL LEAFLET MARGIN WAVINESS:
1 = Absent; 2 = Slight; 3 = Weak; 4 = Medium; 5 = Strong

V	R1	R2	R3	R4
2	4	3		

NUMBER OF PRIMARY LEAFLET PAIRS: *(See figure 11)*

AVERAGE:

V	R1	R2	R3	R4
3	3	3		

RANGE:

V	R1	R2	R3	R4
3 to 4	2 to 3	3 to 4	to	to

PRIMARY LEAFLET TIP SHAPE: *(See figure 4 & 11)*
1 = Acute; 2 = Cuspidate; 3 = Acuminate; 4 = Obtuse; 5 = Other_____

V	R1	R2	R3	R4
3	3	3		

200300067

* PRIMARY LEAFLET SIZE:
1 = Very Small; 2 = Small; 3 = Medium; 4 = Large; 5 = Very Large

V	R1	R2	R3	R4
3	4	3		

PRIMARY LEAFLET SHAPE: *(See figure 3 & 11)*
1 = Narrowly ovate; 2 = Medium ovate; 3 = Broadly ovate; 4 = Lanceolate; 5 = Elliptical;
6= Obovate; 7 = Oblong; 8 = Other_____

V	R1	R2	R3	R4
1	1	1.5		

PRIMARY LEAFLET BASE SHAPE: *(See figure 5 & 11)*
1 = Cuneate; 2 = Acute; 3 = Obtuse; 4 = Cordate; 5 = Truncate; 6 = Lobed; 7 = Other_____

V	R1	R2	R3	R4
4	3	3		

NUMBER OF SECONDARY AND TERTIARY LEAFLET PAIRS: *(See figure 11)*

AVERAGE:

V	R1	R2	R3	R4
6 (2 II 4 III)	3 (2 II 1 III)	3 (2 II 1 III)		

RANGE:

V	R1	R2	R3	R4
5 to 7	1 to 3	1 to 3	to	to

5. INFLORESCENCE CHARACTERISTICS:

NUMBER OF INFLORESCENCE / PLANT:

AVERAGE:

V	R1	R2	R3	R4
4	4	8		

RANGE:

V	R1	R2	R3	R4
2 to 7	2 to 4	6 to 12	to	to

NUMBER OF FLORETS / INFLORESCENCE:

AVERAGE:

V	R1	R2	R3	R4
12	6	3		

RANGE:

V	R1	R2	R3	R4
9 to 14	3 to 9	2 to 4	to	to

* COROLLA INNER SURFACE COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsell Color Chart
(Measure predominant color of newly open flower & circle the appropriate color chart)

V	R1	R2	R3	R4
Pale purple ~~WHITE~~ 5P 9/2	5R 7/2	WHITE		

per correspondance
4-14-08
LMC
4-23-08

COROLLA OUTER SURFACE COLOR CHART

VALUE:

Royal Horticulture Society Color Chart or Munsell Color Chart

(Measure predominant color of newly open flower & circle the appropriate color chart)

V	~~WHITE~~	R1	5R 7/2	R2	~~WHITE~~	R3		R4	

* **COROLLA INNER SURFACE COLOR:** *(Measure predominant color of newly open flower)*
1 = White; 2 = Red-violet; 3 = Blue-violet; 4 = Other_____

V	R1	R2	R3	R4
4 pale purple per correspondence 4-14-08 LMC 4-23-08	2	1		

COROLLA SHAPE: *(See figure 6)*
1 = Very rotate; 2 = Rotate; 3 = Pentagonal; 4 = Semi-stellate; 5 = Stellate

V	R1	R2	R3	R4
3	2	3		

CALYX ANTHOCYANIN COLORATION:
1 = Absent; 3 = Weak; 5 = Medium; 7 = Strong; 9 = Very strong

V	R1	R2	R3	R4
1	1	1		

ANTHER COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsell Color Chart
(Measure when newly opened flower is fully expanded and circle the appropriate color chart)

V	R1	R2	R3	R4
2.5Y 8/10	2.5Y 8/10	2.5Y 8/10		

ANTHER SHAPE: *(See figure 7)*
1 = Broad cone; 2 = Narrow cone; 3 = Pear shape cone; 4 = Loose; 5 = Other_____

V	R1	R2	R3	R4
2	1	2		

POLLEN PRODUCTION:
1 = None; 3 = Some; 5 = Abundant

V	R1	R2	R3	R4
4	2	2		

STIGMA SHAPE: *(See figure 8)*
1 = Capitate; 2 = Clavate; 3 = Bi-lobed

V	R1	R2	R3	R4
1	1	1		

STIGMA COLOR CHART VALUE: Royal Horticulture Society Color Chart or (Munsell Color Chart)
(Circle the appropriate color chart)

V	R1	R2	R3	R4
2.5GY 8/8	2.5GY 8/8	2.5GY 8/8		

BERRY PRODUCTION: *(Under field conditions)*
1 = None; 3 = Low; 5 = Moderate; 7 = Heavy; 9 = Very heavy

V	R1	R2	R3	R4
5	1.5	2		

5. TUBER CHARACTERISTICS:

* **PREDOMINANT SKIN COLOR:** 20030067

1 = White; 2 = Light Yellow; 3 = Yellow; 4 = Buff; 5 = Tan; 6 = Brown; 7 = Pink; 8 = Red; 9 = Purplish-red; 10 = Purple; 11 = Dark purple-black; 12 = Other_____

V	R1	R2	R3	R4
5	5	5		

PREDOMINANT SKIN COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsell Color Chart
(Circle the appropriate color chart)

V	R1	R2	R3	R4
2.5 Y 7/4	2.5 Y 7/4	2.5 Y 7/4		

SECONDARY SKIN COLOR:
1 = Absent; 2 = Present, please describe: _____

V	R1	R2	R3	R4
1	1	1		

SECONDARY SKIN COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsell Color Chart
(Circle the appropriate color)

V	R1	R2	R3	R4

SECONDARY SKIN COLOR DISTRIBUTION:
1 = Eyes; 2 = Eyebrows; 3 = Splashed; 4 = Scattered; 5 = Spectacled; 6 = Stippled; 7 = Other_____

V	R1	R2	R3	R4

SKIN TEXTURE:
1 = Smooth; 2 = Rough (flaky); 3 = Netted; 4 = Russetted; 5 = Heavily russetted; 6 = Other_____

V	R1	R2	R3	R4
2 and 3 ~~2.5~~	3	2.5		

per correspondance 4-14-08 LMC 4-23-08

* **TUBER SHAPE:** *(See figure 10)*
1 = Compressed; 2 = Round; 3 = Oval; 4 = Oblong; 5 = Long; 6 = Other_____

V	R1	R2	R3	R4
2 and 3 ~~2.5~~	2.5	2.5		

per correspondance 4-14-08 LMC 4-23-08

TUBER THICKNESS:
1 = Round; 2 = Medium thick; 3 = Slightly flattened; 4 = Flattened; 5 = Other_____

V	R1	R2	R3	R4
2	2	3		

200300067

TUBER LENGTH (mm):

AVERAGE:

V	R1	R2	R3	R4
6.35	7.29	7.17		

RANGE:

V	R1	R2	R3	R4
4.0 to 10.5	5.0 to 11.3	5.0 to 9.5	to	to

STANDARD DEVIATION:

V	R1	R2	R3	R4
1.38	1.74	0.97		

AVERAGE WEIGHT OF SAMPLE TAKEN:

V	R1	R2	R3	R4
30.7	33.2	32.85		

TUBER WIDTH (mm):

AVERAGE:

V	R1	R2	R3	R4
6.25	6.61	6.58		

RANGE:

V	R1	R2	R3	R4
3.4 to 9.6	4.5 to 10.2	3.5 to 9.0	to	to

STANDARD DEVIATION:

V	R1	R2	R3	R4
1.28	1.3	1.0		

AVERAGE WEIGHT OF SAMPLE TAKEN:

V	R1	R2	R3	R4
30.7	33.2	32.85		

TUBER THICKNESS (mm):

AVERAGE:

V	R1	R2	R3	R4
5.36	5.39	5.23		

RANGE:

V	R1	R2	R3	R4
3.4 to 7.7	3.8 to 7.5	3.9 to 6.7	to	to

STANDARD DEVIATION:

V	R1	R2	R3	R4
0.95	0.91	0.65		

AVERAGE WEIGHT OF SAMPLE TAKEN:

V	R1	R2	R3	R4
30.7	33.2	32.85		

TUBER EYE DEPTH:

1 = Protruding; 2 = Shallow; 3 = Intermediate; 4 = Deep; 5 = Very deep

V	R1	R2	R3	R4
3	2	3		

TUBER LATERAL EYES
1 = Protruding; 2 = Shallow; 3 = Intermediate; 4 = Deep; 5 = Very deep

V	R1	R2	R3	R4
3	2	3		

NUMBER EYE / TUBER:

AVERAGE:

V	R1	R2	R3	R4
7	7	7		

RANGE:

V	R1	R2	R3	R4
7 to 9	7 to 9	6 to 9	to	to

DISTRIBUTION OF TUBER EYES:
1 = Predominantly apical; 2 = Evenly distributed

V	R1	R2	R3	R4
2	2	2		

PROMINENCE OF TUBER EYEBROWS:
1 = Not prominent; 2 = Slight prominence; 3 = Medium prominence; 4 = Very prominent; 5 = Other_____

V	R1	R2	R3	R4
1	1	1		

* **PRIMARY TUBER FLESH COLOR CHART VALUE:** Royal Horticulture Society Color Chart or Munsell Color Chart
(Circle the appropriate color chart)

V	R1	R2	R3	R4
Pale yellow 2.5Y 8/4 ~~WHITE~~	WHITE	WHITE		

per correspondance 04-14-08 LMC 04-23-08

SECONDARY TUBER FLESH COLOR:
1 = Absent; 2 = Present, please describe: _____

V	R1	R2	R3	R4
1	1	1		

SECONDARY TUBER FLESH COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsell Color Chart
(Circle the appropriate color chart)

V	R1	R2	R3	R4

NUMBER OF TUBERS / PLANT:
1 = Low (<8); 2 = Medium (8 -15); 3 = High (>15)

V	R1	R2	R3	R4
2	2	2		

8. DISEASES CHARACTERISTICS:

DISEASES REACTION: 0 = Not Tested 1 = Highly Resistant 2 = Resistant Few Symptoms 3 = Resistance Few Lessions in Number and Size 4 = Moderately Resistance 5 = Intermedia Susceptible 6 = Moderate Susceptible 7 = Susceptible 9 = Highly Susceptible

LATE BLIGHT: (Phytophthora) Snowden Atlantic

V	R1	R2	R3	R4
5	7	7		

EARLY BLIGHT: (Alternaria)

V	R1	R2	R3	R4
3	4	4		

SOFT ROT (Erwinia)

V	R1	R2	R3	R4
4	4	4		

COMMON SCAB (Streptomyces)

V	R1	R2	R3	R4
3	5	5		

POWDERY SCAB (Spongospora)

V	R1	R2	R3	R4
5	5	5		

DRY ROT (Fusarium)

V	R1	R2	R3	R4
0	0	0		

POTATO LEAF ROLL VIRUS (PLRV)

V	R1	R2	R3	R4
0	0	0		

07-13-2006 LMC
per letter 07-10-2006

8. DISEASES CHARACTERISTICS: (continued)

POTATO VIRUS X (PVX)

V		R1		R2		R3		R4	

POTATO VIRUS Y (PVY)

V		R1		R2		R3		R4	

POTATO VIRUS M (PVM)

V		R1		R2		R3		R4	

POTATO VIRUS A (PVA)

V		R1		R2		R3		R4	

GOLDEN NEMATODE (Globodera)

V		R1		R2		R3		R4	

ROOT – KNOT NEMATODE (Meloidogyne)

V		R1		R2		R3		R4	

OTHER DISEASE _____

V		R1		R2		R3		R4	

PHYSIOLOGICAL DISORDER

1 = Malformed shape 2 = Tuber cracking 3 = Feathering 4 = Hollow heart 5 = Internal necrosis
6 = Blackheart 7 = Internal sprouting 8 = Other _____

V		R1		R2		R3		R4	

9. PESTS CHARACTERISTICS:

PEST REACTION: 0 = Not Tested 1 = Highly Resistant 2 = Resistant Few Symptoms 3 = Resistance Few Lessions in Number and Size
4 = Moderately Resistance 5 = Intermedia Susceptible 6 = Moderate Susceptible
7 = Susceptible 9 = Highly Susceptible

COLORADO POTATO BEETLE (CPB) (*Leptinotarsa*)

V		R1		R2		R3		R4	

GREEN PEACH APHID (*Myzus*)

V		R1		R2		R3		R4	

OTHER:

V		R1		R2		R3		R4	

OTHER:

V		R1		R2		R3		R4	

9. QUALITY CHARACTERISTICS:

CHIEF MARKET: PROCESSING (CHIPS)

SPECIFIC GRAVITY (wt. air /wt. air - wt. water)
1 < 1.060; 2 = 1.060-1.069; 3 = 1.070-1.079; 4 = 1.080-1.089; 5 > 1.090

V	4	R1	4	R2	4	R3		R4	

TOTAL GLYCOALKALOID CONTENT (mg. / 100 g. fresh tuber)

V	10.78	R1		R2		R3		R4	

OTHER QUALITY CHARACTERISTICS: Describe any other quality characteristics that may aid in identification, (e.g. chip-processing, french fry processing, baking, boiling, after-cooking darkening). Please attach data and corresponding protocol.

CHIP PROCESSING

11. CHEMICAL IDENTIFICATION:

Describe chemical traits of the candidate variety that aid in its identification (e.g. protein or DNA electrophoresis). Please attach data and the corresponding protocol.

MDH-1	$1^2 1^2 1^3 1^3$	MDH-2	$2^2 2^2 2^2 2^2$	6PGDH3	$3^1 3^1 3^1 3^1$
PGI-1	$1^2 1^2 1^2 1^2$	GOT-1	$1^3 1^3 1^4 1^4$	GOT-2	$2^3 2^5 2^5 2^5$
PGM-1	$1^1 1^2 1^2 1^3$	PGM-2	$2^2 2^2 2^2 2^3$		

12. ADDITIONAL COMMENTS AND CHARACTERISTICS:

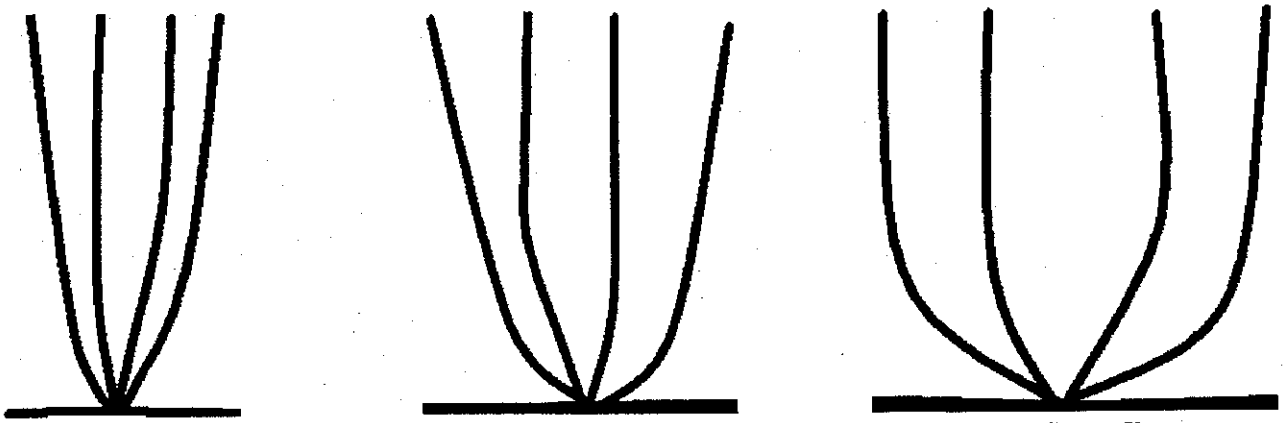
Include any additional descriptors that would be useful in distinguishing the candidate variety.

-TUBER APPEARANCE : SOME TUBERS SHOW DEEP INSERTION OR DEEP BUD END.

Exhibit C
Description of tuber sprouts grown under diffuse light

Light Sprout Characteristics	W 1201	Snowden	Atlantic
General shape: 1 = spherical, 2 = ovoidal, 3 = conical, 4 = broad conical	2	2	3
Base: Pubescence 1 = absent, 3 = weak, 5 = medium, 7 = strong	5	1	5
Base: Anthocyanin coloration 1 = green, 2 = red-violet, 3 = blue-violet, 4 = pale pink	2	4	2
Base: Intensity of anthocyanin coloration 1 = absent, 3 = weak, 5 = medium, 7 = strong, 9 = very strong	5	2	5
Tip: Habit 3 = closed, 5 = medium, 7 = open	5	3	3
Tip: Pubescence 1 = absent, 3 = weak, 5 = medium, 7 = strong	5	3	3
Tip: Anthocyanin coloration 1 = green, 2 = red-violet, 3 = blue-violet, 4 = other – blue violet green	2	1	2
Tip: Intensity of anthocyanin coloration 1 = absent, 3 = weak, 5 = medium, 7 = strong, 9 = very strong	3	1	3
Root initials: frequency 3 = low, 5 = medium, 7 = high	5	5	3
Protrusion of lenticels 3 = weak, 5 = medium, 7 = strong	5	5	3
Length of lateral shoots 3 = short, 5 = medium, 7 = long	3	5	3

Figure 1: Growth Habit

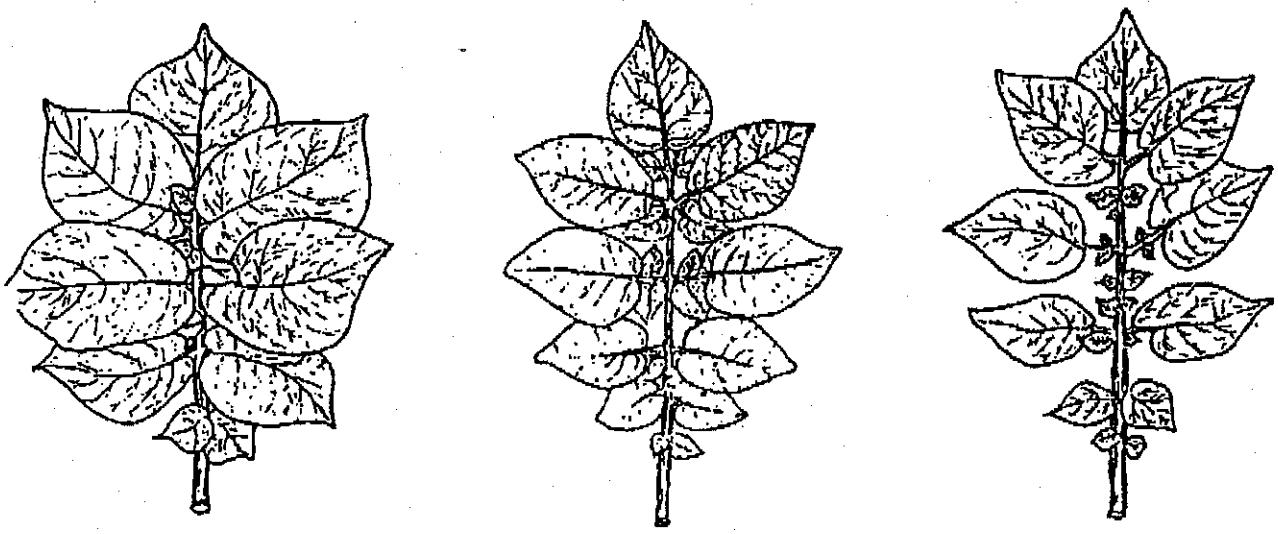


3 = Erect
$>45^0$ with ground

5 = Semi-erect
30-45^0 with ground

7 = Spreading
$<30^0$ with ground

Figure 2: Leaf Silhouette



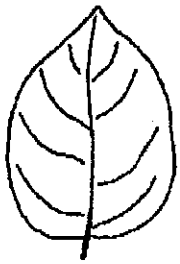
1 = Closed

3 = Medium

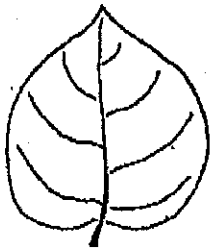
5 = Open

Figure 3: Terminal Leaflet Shape / Primary Leaflet Shape

1=Narrowly Ovate



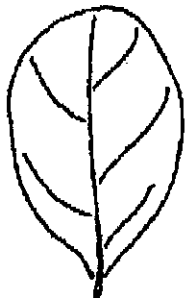
2=Medium Ovate



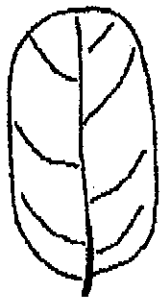
3=Broadly Ovate

4=Lanceolate

5=Elliptical



6=Obovate



7=Oblong

Figure 4: Terminal Leaflet Shape of Tip / Primary Leaflet Shape of Tip

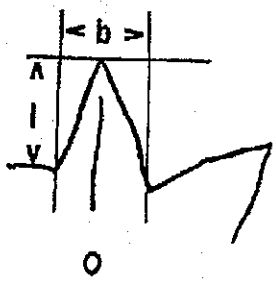
1=Acute 2=Cuspidate 3=Acuminate 4=Obtuse

Figure 5: Terminal Leaflet Shape of Base / Primary Leaflet Shape of Base

1=Cuneate 2=Acute 3=Obtuse

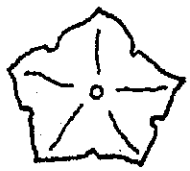
4=Cordate 5=Truncate 6=Lobed

Figure 6: Corolla Shape

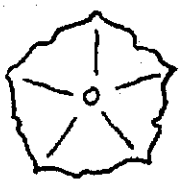


stellate
l > b

semi-stellate
l = b



pentagonal
l < b



rotate
l << b

very rotate
l <<< b

Figure 7: Anther Shape

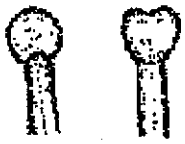
1=Broad cone

2=Narrow cone

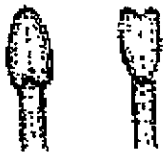
3=Pear shape cone

4=Loose

Figure 8: Stigma Shape



1=Capitate

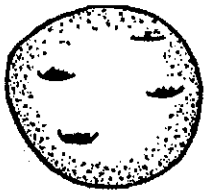


2=Clavate

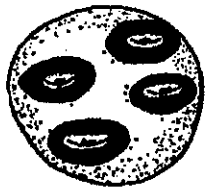
3=Bilobed

Figure 9: Distribution of Secondary Tuber Color

1=Eyes

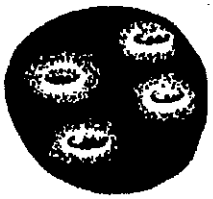


2=Eyebrows



3=Splashed

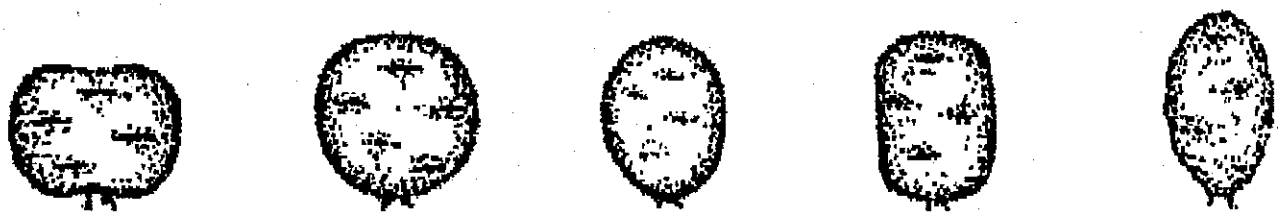
4=Scattered



5=Spectacled

6=Stippled

Figure 10: Tuber Shape



1=Compressed 2=Round 3=Oval 4=Oblong 5=Long

Figure 11: Leaf Dissection

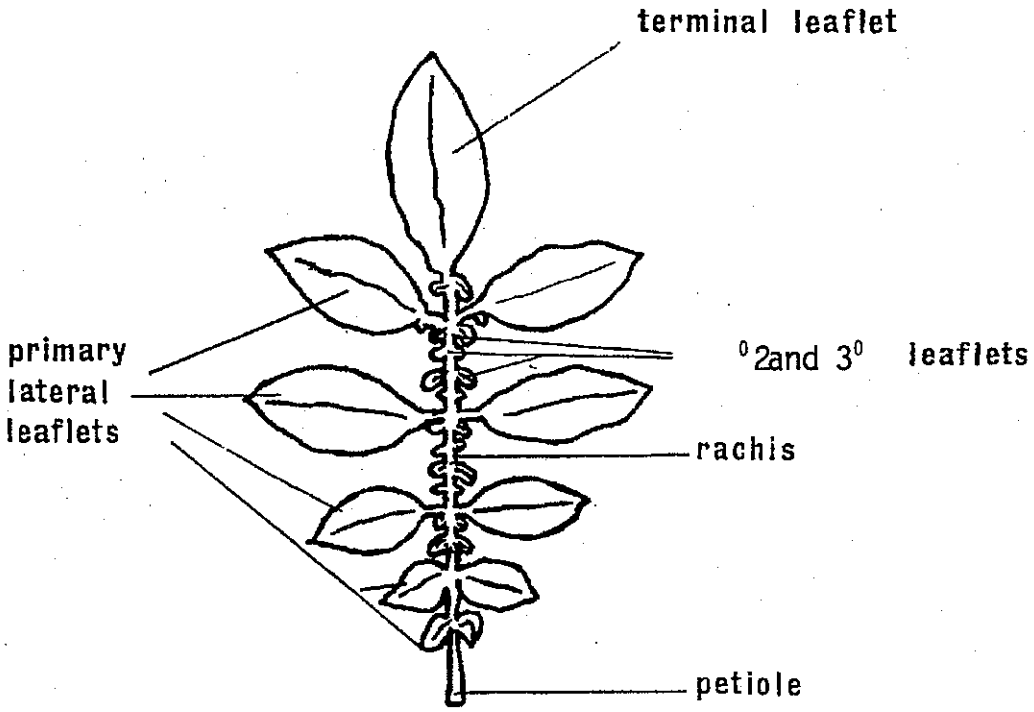


Figure: 12 Stem Wings

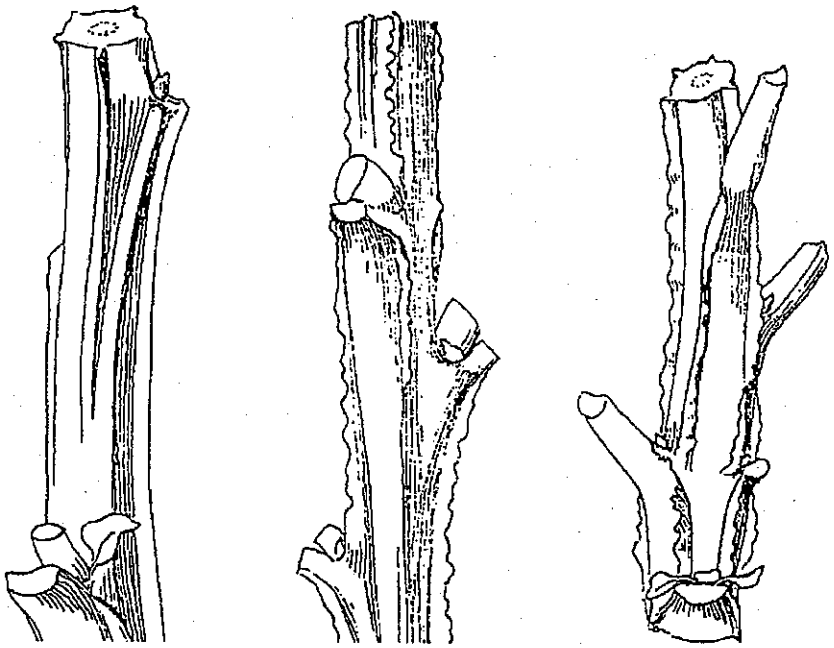


Figure 13: Leaf Stipules:

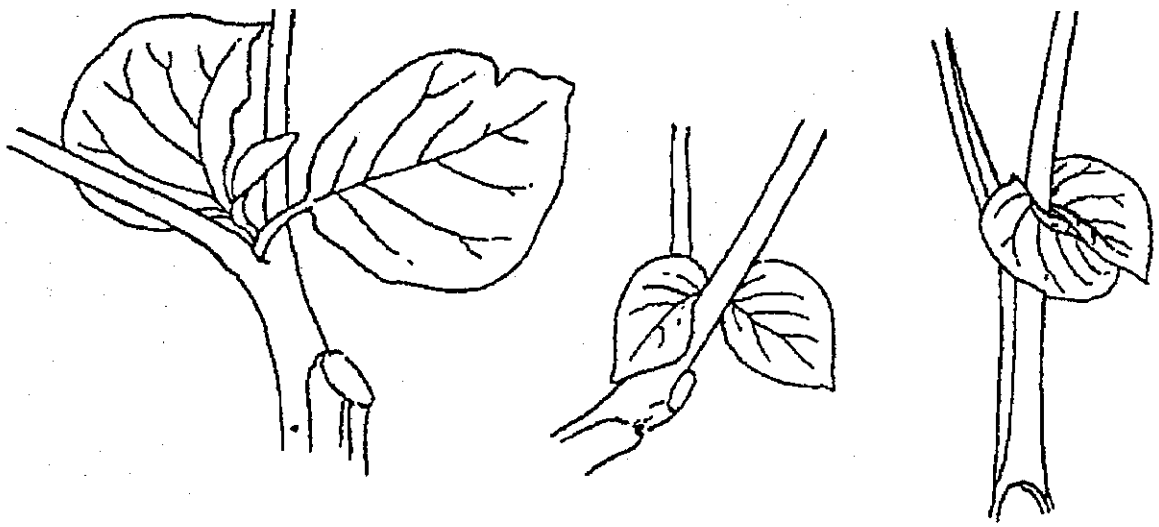


EXHIBIT D:
MegaChip

MegaChip is a chipping potato, with netted skinned and white fleshed round tubers, of medium late maturity.

The following additional information in support of this variety is provided below.

Isozyme Pattern for MegaChip

This line was fingerprinted for isozyme pattern by Dr. David Douches, Dept. of Crop and Soil Sciences, Michigan State University and was compared with the variety database. The electrophoretic assay and nomenclature is according to Douches & Ludlam, 1991 (American Potato Journal, 68: 767-780). Its isozyme pattern is the following one and is distinct and unique:

Mdh-1 $1^2 1^2 1^3 1^3$	Got-1 $1^3 1^3 1^4 1^4$	Pgm-2 $2^2 2^2 2^2 2^3$
Mdh-2 $2^2 2^2 2^2 2^2$	Got-2 $2^3 2^5 2^5 2^5$	Pgi-1 $1^2 1^2 1^2 1^2$
6-Pgdh-3 $3^1 3^1 3^1 3^1$	Pgm-1 $1^1 1^2 1^2 1^3$	

Wisconsin Comparative Field Trial Results (Three Year Average)

Location for all traits – Hancock, Wisconsin, 1999-2001. Randomized Complete Block Design, 3 replications, 20 hills/plot (Hancock) or 8 hills/plot (Rhinelander). Statistical Analysis: ANOVA 2.

Cultivar	Vine Maturity (1-9)*	Total Yield (cwt/A)	US#1 Yield (%)	Hollow Heart (%)**	Internal Br.Spot (%)**
Snowden	5.7 a	624.2 a	94.1 a	4.5 a	0.2 a
Atlantic	6.0 b	560.5 b	90.9 b	17.8 b	22.2 b
W 1201	6.6 c	543.5 b	90.5 b	1.0 a	2.2 a

Cultivar	Specific Gravity	Chip Color Reversion 0.000	Chip Color 3month40F,d (1-10)****	Chip Color 3month40F,r (1-10)****
Snowden	1.083 ab	3.6 a	7.4 a	6.5 a
Atlantic	1.086 a	4.6 b	8.3 b	7.8 b
W 1201	1.080 b	4.3 ab	7.9 ab	7.4 b

A different letter means a statistically significant difference by T-test.

* vine maturity (1=very early, 9=very late).

** frequency of undesired tubers with internal defects (hollow heart, internal brown spot).

**** chip color (1=very light, 10=very dark) after one month at 50F (reversion), direct from 3 month storage at 40F (3month40F,d) and reconditioned from 3 month storage at 40F (3month40F,r).

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued *(7 U.S.C. 2421)*. The information is held confidential until the certificate is issued *(7 U.S.C. 2426)*.

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Wisconsin Alumni Research Foundation	W1201	MegaChip

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	5. TELEPHONE *(Include area code)*	6. FAX *(Include area code)*
614 North Walnut Street P.O. Box 7365 Madison, WI 53707-7365	(608) 263-2500	

7. PVPO NUMBER #200300067

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. **If no, please explain.** ☑ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? **If no, give name of country.** ☑ YES ☐ NO

US

10. Is the applicant the original owner? ☑ YES ☐ NO **If no, please answer one of the following:**

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?
☐ YES ☐ NO **If no, give name of country**
US

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?
☐ YES ☐ NO **If no, give name of country**
US

11. Additional explanation on ownership *(Trace ownership from original breeder to current owner. Use the reverse for extra space if needed)*:

The original breeders (employees) for this variety were Dr. Jiming Jiang, Dr. Horia Groza and Bryan Bowen. The work was conducted at the University of Wisconsin-Madison Department of Horticulture and the UW- Rhinelander Agricultural Research Station. By agreement between the employees and Wisconsin Alumni Research Foundation and the University of Wisconsin, all rights to any invention or discovery made by an employee are assigned to Wisconsin Alumni Research Foundation. No rights to such invention or discovery are retained by any employee.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

200300067

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE POTATO VARIETY W1201 FILED DECEMBER 19, 2002

DECLARATION REGARDING DEPOSIT

I, Lisa V. Mueller, attorney for the applicant for the above-identified plant variety protection certificate, the Wisconsin Alumni Research Foundation, do hereby declare on behalf of said applicant that during the pendency of this application for plant variety protection certificate a viable sample of propagatable material of the above identified potato variety will be deposited, and replenished as needed periodically, in a public depository in accordance with the regulations established by the Plant Variety Protection Office for potato varieties.

Respectfully submitted,

Lisa V. Mueller, Reg. No. 38,978
Attorney for Applicant
WOOD, PHILLIPS, KATZ, CLARK & MORTIMER
500 West Madison St., Suite 3800
Chicago, IL 60661
(312)876-1800

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT F
DECLARATION REGARDING DEPOSIT

NAME OF OWNER (S)	ADDRESS *(Street and No. or RD No., City, State, and Zip Code and Country)*	TEMPORARY OR EXPERIMENTAL DESIGNATION
Wisconsin Alumni Research Foundation	614 North Walnut Street P.O. Box 7365 Madison, WI 53707-7365	W1201
		VARIETY NAME MegaChip
NAME OF OWNER REPRESENTATIVE (S)	**ADDRESS** *(Street and No. or RD No., City, State, and Zip Code and Country)*	FOR OFFICIAL USE ONLY
Lisa V. Mueller	614 North Walnut Street P.O. Box 7365 Madison, WI 53707-7365	**PVPO NUMBER** #200300067

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

Lisa V. Mueller/lc
Signature

4/14/08
Date